We Claim:

1. An isolated nucleic acid molecule according to any one of SEQ ID NO:s 2, 4, 7, 9, 12, 14, 17, 19, 21, 24, 26, 29, 31, 34, 36, 39, 41, 44, 46, 49, and 51 or a fragment or analogue thereof which has the ability to stimulate or inhibit at least one biological activity selected from the group consisting of vasculogenesis, angiogenesis, vascular permeability, endothelial cell proliferation, endothelial cell differentiation, endothelial cell migration, and endothelial cell survival, or an isolated nucleic acid molecule which hybridizes to one of the foregoing sequences under stringent conditions.

2. An isolated nucleic acid molecule which hybridizes to the compliment of a nucleic acid molecule according to Claim 1 under stringent conditions.

3. An isolated siRNA molecule targeted to an isolated nucleic acid molecule according to Claims 1 or 2, wherein the isolated siRNA molecule is at least 19 base pairs long.

4. An expression vector comprising the nucleic acid according to Claims 1 or 2, optionally the nucleic acid may be operatively associated with a regulatory nucleic acid controlling the expression of the polypeptide encoded by said nucleic acid.

5. A host cell genetically engineered to contain a nucleic acid according to Claims 1 or 2.

6. A host cell transfected with an expression vector according to Claim 4.

7. A method of treating an angiogenesis-related condition in a cell, group of cells, or organism, comprising the step of administering an expression vector according to Claim 4 to the cell, group of cells, or organism.

8. An antibody with specific reactivity to a nucleic acid according to Claims 1 or 2, wherein the antibody may preferably be polyclonal or monoclonal and wherein the antibody may further comprise a detectable label such as a fluorescent label.

9. A transgenic, non-human animal which has been genetically engineered to contain a transgene comprising a nucleic acid according to Claims 1 or 2, preferably, the transgene may be expressed.

10. A pharmaceutical composition comprising a nucleic acid sequence according to Claims 1 or 2.

11. A method of affecting vasculogenesis or angiogenesis in a cell, group of cells, or organism, comprising the step of administering a pharmaceutical composition according to Claim 16 to the cell, group of cells, or organism, the affecting may preferably cause an increase or decrease, more preferably, the cell, group of cells, or organism has an angiogenesis-related disorder such as cancer, retinopathy, macular degeneration, corneal ulceration, stroke, ischemic heart disease, infertility, ulcers, scleradoma, wound healing, ischemia, ischemic heart disease, myocardial infarction, myocardosis, angina pectoris, unstable angina, coronary arteriosclerosis, arteriosclerosis obliterans, Berger's disease, arterial embolism, arterial thrombosis, cerebrovascular occlusion, cerebral infarction, cerebral thrombosis, cerebral embolism, rubeosis proliferative vitreoretinopathy, chronic inflammation, inflammatory bowel disease, psoriasis, sarcoidosis and rheumatoid arthritis.

12. An isolated polypeptide comprising a sequence of amino acids substantially corresponding to the amino acid sequence in any one of SEQ ID NO:s 3, 5, 8, 10, 13, 15, 18, 20, 22, 25, 27, 30, 32, 35, 37, 40, 42, 45, 47, 50, and 52 or a fragment or analogue thereof, said polypeptide having the ability to affect angiogenesis in a cell, a group of cells, or an organism.

13. A host cell genetically engineered to express a polypeptide according to Claim 12.

14. An antibody specifically reactive with a polypeptide according to Claim 12, wherein the antibody may preferably be polyclonal or monoclonal and wherein the antibody may further comprise a detectable label such as a fluorescent label.

15. A transgenic, non-human animal which has been genetically engineered to contain a transgene comprising a nucleic acid which encodes a polypeptide according to Claim 12, preferably, the transgene may be expressed.

16. A pharmaceutical composition comprising an isolated polypeptide according to Claim 12.

17. A method of affecting vasculogenesis or angiogenesis in a cell, group of cells, or organism, comprising the step of administering a pharmaceutical composition according to Claim 16 to the cell, group of cells, or organism, the affecting may preferably cause an increase or decrease, more preferably, the cell, group of cells, or organism has an angiogenesis-related disorder such as cancer, retinopathy, macular degeneration, corneal ulceration, stroke, ischemic heart disease, infertility, ulcers, scleradoma, wound healing, ischemia, ischemic heart disease, myocardial infarction, myocardosis, angina pectoris, unstable angina, coronary arteriosclerosis, arteriosclerosis obliterans, Berger's disease, arterial embolism, arterial thrombosis, cerebrovascular occlusion, cerebral infarction, cerebral thrombosis, cerebral embolism, rubeosis proliferative vitreoretinopathy, chronic inflammation, inflammatory bowel disease, psoriasis, sarcoidosis and rheumatoid arthritis.

18. A method of detecting an angiogenesis-related transcript in a cell of a patient, the method comprising contacting a biological sample from the patient with a polynucleotide that selectively hybridizes to a sequence at least 80% identical to a sequence according to any one of SEQ ID NO:s 2, 4, 7, 9, 12, 14, 17, 19, 21, 24, 26, 29, 31, 34, 36, 39, 41, 44, 46, 49, and 51, wherein an angiogenesis-related transcript is detected where hybridization is detected, preferably the polynucleotide comprises a sequence according to any one of SEQ ID NO:s 2, 4, 7, 9, 12, 14, 17, 19, 21, 24, 26, 29, 31, 34, 36, 39, 41, 44, 46, 49, and 51, preferably the biological sample is a tissue sample or is comprised of isolated nucleic acids such as mRNA, preferably the nucleic acids are amplified prior to the step of contacting the biological sample with the polynucleotide, preferably the polynucleotide is immobilized on a solid surface.

19. A method of affecting at least one bioactivity selected from angiogenesis and vasculogenesis in a vertebrate organism, said method comprising the step of administering to said organism an effective angiogenesis or vasculogenesis affecting amount of a nucleotide or polypeptide according to Claims 1 or 12, wherein the organism is preferably a mammal such as mice, rats, rabbits, guinea pigs, cats, dogs, pigs, cows, monkeys, and humans, wherein vasculogenesis or angiogenesis is preferably enhanced, increased, inhibited, or decreased, wherein the organism preferably has an angiogenesis-related disorder such as cancer, retinopathy, macular degeneration, corneal ulceration, stroke, ischemic heart disease, infertility, ulcers, scleradoma, wound healing, ischemia, ischemic heart disease, myocardial infarction,

myocardosis, angina pectoris, unstable angina, coronary arteriosclerosis, arteriosclerosis obliterans, Berger's disease, arterial embolism, arterial thrombosis, cerebrovascular occlusion, cerebral infarction, cerebral thrombosis, cerebral embolism, rubeosis proliferative vitreoretinopathy, chronic inflammation, inflammatory bowel disease, psoriasis, sarcoidosis and rheumatoid arthritis.

20. A transgenic increased or decreased angiogenesis laboratory animal comprising one or more cells in which the expression of a sequence according to any one of SEQ ID NO:s 2, 4, 7, 9, 12, 14, 17, 19, 21, 24, 26, 29, 31, 34, 36, 39, 41, 44, 46, 49, and 51 is upregulated, downregulated, or absent.